

§ 63.494

40 CFR Ch. I (7–1–13 Edition)

§ 63.494(a)(1)–(3) and associated requirements.

[76 FR 22589, Apr. 21, 2011]

§ 63.494 Back-end process provisions—residual organic HAP and emission limitations.

(a) The monthly weighted average residual organic HAP content of all grades of styrene butadiene rubber produced by the emulsion process, polybutadiene rubber and styrene butadiene rubber produced by the solution process, and ethylene-propylene rubber produced by the solution process that is processed, shall be measured after the stripping operation (or the reactor(s), if the plant has no stripper(s)), as specified in § 63.495(d), and shall not exceed the limits provided in paragraphs (a)(1) through (3) of this section, as applicable. Owners or operators of these affected sources shall comply with the requirements of paragraphs (a)(1) through (3) of this section using either stripping technology, or control or recovery devices. The organic HAP emissions from all back-end process operations at affected sources producing butyl rubber, epichlorohydrin elastomer, neoprene, and nitrile butadiene rubber shall not exceed the limits determined in accordance with paragraph (a)(4) of this section, as applicable.

(1) For styrene butadiene rubber produced by the emulsion process:

(i) A monthly weighted average of 0.40 kg styrene per megagram (Mg) latex for existing affected sources; and

(ii) A monthly weighted average of 0.23 kg styrene per Mg latex for new sources;

(2) For polybutadiene rubber and styrene butadiene rubber produced by the solution process:

(i) A monthly weighted average of 10 kg total organic HAP per Mg crumb rubber (dry weight) for existing affected sources; and

(ii) A monthly weighted average of 6 kg total organic HAP per Mg crumb rubber (dry weight) for new sources.

(3) For ethylene-propylene rubber produced by the solution process:

(i) A monthly weighted average of 8 kg total organic HAP per Mg crumb rubber (dry weight) for existing affected sources; and

(ii) A monthly weighted average of 5 kg total organic HAP per Mg crumb rubber (dry weight) for new sources.

(4) The organic HAP emissions from back-end processes at affected sources producing butyl rubber, epichlorohydrin elastomer, neoprene, and nitrile butadiene rubber shall not exceed the limits determined in accordance with paragraphs (a)(4)(i) through (iv) of this section for any consecutive 12-month period. The specific limitation for each elastomer type shall be determined based on the calculation or the emissions level provided in paragraphs (a)(4)(i) through (iv) of this section divided by the base year elastomer product that leaves the stripping operation (or the reactor(s), if the plant has no stripper(s)). The limitation shall be calculated and submitted in accordance with § 63.499(f)(1).

(i) For butyl rubber, the organic HAP emission limitation shall be calculated using the following equation:

$$\text{BREL} = \frac{\text{Ce}_{2009} + \text{Be}_{2009} + \text{UCe}_{2009}}{\text{P}_{2009}} \times 1.35$$

Where:

Be₂₀₀₉ = Bypass emissions in 2009, Mg/yr

BREL = Butyl rubber emission limit, Mg organic HAP emissions/Mg butyl rubber produced

Ce₂₀₀₉ = Controlled emissions in 2009, Mg/yr

P₂₀₀₉ = Total elastomer product leaving the stripper in 2009, Mg/yr

UCe₂₀₀₉ = Uncontrolled emissions in 2009, Mg/yr

1.35 = variability factor, unitless

(ii) For epichlorohydrin elastomer, the organic HAP emission limitation, in units of Mg organic HAP emissions per Mg of epichlorohydrin elastomer

produced, shall be calculated by dividing 51 Mg/yr by the mass of epichlorohydrin elastomer produced in 2009, in Mg.

(iii) For neoprene, the organic HAP emission limitation, in units of Mg organic HAP emissions per Mg of neoprene produced, shall be calculated by dividing 30 Mg/yr by the mass of neoprene produced in 2007, in Mg.

(iv) For nitrile butadiene rubber, the organic HAP emission limitation, in units of Mg organic HAP emissions per Mg of nitrile butadiene rubber produced, shall be calculated by dividing 2.4 Mg/yr by the mass of nitrile butadiene rubber produced in 2009, in Mg.

(5) For EPPU that produce both an elastomer product with a residual organic HAP limitation listed in paragraphs (a)(1) through (3) of this section, and a product listed in paragraphs (a)(5)(i) through (iv) of this section, only the residual HAP content of the elastomer product with a residual organic HAP limitation shall be used in determining the monthly average residual organic HAP content.

(i) Resins;

(ii) Liquid rubber products;

(iii) Latexes from which crumb rubber is not coagulated; or

(iii) Elastomer products listed in paragraph (a)(4) of this section.

(6) There are no back-end process operation residual organic HAP or emission limitations for Hypalon™ and polysulfide rubber production. There are also no back-end process operation residual organic HAP limitations for latex products, liquid rubber products, products produced in a gas-phased reaction process, styrene butadiene rubber produced by any process other than a solution or emulsion process, polybutadiene rubber produced by any process other than a solution process, or ethylene-propylene rubber produced by any process other than a solution process.

(b) If an owner or operator complies with the residual organic HAP limitations in paragraph (a)(1) through (3) of this section using stripping technology, compliance shall be demonstrated in accordance with § 63.495. The owner or operator shall also comply with the recordkeeping provisions

in § 63.498, and the reporting provisions in § 63.499.

(c) If an owner or operator complies with the residual organic HAP limitations in paragraph (a)(1) through (3) of this section using control or recovery devices, compliance shall be demonstrated using the procedures in § 63.496. The owner or operator shall also comply with the monitoring provisions in § 63.497, the recordkeeping provisions in § 63.498, and the reporting provisions in § 63.499.

(d) If the owner or operator complies with the residual organic HAP limitations in paragraph (a)(1) through (3) of this section using a flare, the owner or operator of an affected source shall comply with the requirements in § 63.504(c).

[62 FR 46925, Sept. 5, 1996, as amended at 65 FR 38065, June 19, 2000; 76 FR 22589, Apr. 21, 2011]

§ 63.495 Back-end process provisions—procedures to determine compliance with residual organic HAP limitations using stripping technology and organic HAP emissions limitations.

(a) If an owner or operator complies with the residual organic HAP limitations in § 63.494(a)(1) through (3) using stripping technology, compliance shall be demonstrated using the periodic sampling procedures in paragraph (b) of this section, or using the stripper parameter monitoring procedures in paragraph (c) of this section. The owner or operator shall determine the monthly weighted average residual organic HAP content for each month in which any portion of the back-end of an elastomer production process is in operation. A single monthly weighted average shall be determined for all back-end process operations at the affected source.

(b) If the owner or operator is demonstrating compliance using periodic sampling, this demonstration shall be in accordance with paragraphs (b)(1) through (b)(5) of this section.

(1) The location of the sampling shall be in accordance with paragraph (d) of this section.

(2) The frequency of the sampling shall be in accordance with paragraphs (b)(2)(i) or (b)(2)(ii) of this section.